

Missouri Assessment Program
Spring 2004

Mathematics

Released Items Scoring Guides

Grade 4

Session: 1
Item No.: 6
Page No.: 7
Content Standard(s): 1 Number Sense
Process Standard(s): 3.3

Exemplary Response:

- $\$18 + \$13 = \$31$

OR

- $\$20 + \$10 = \$30$

Note: Accept a range of \$30-\$33.

AND

- Bill does not have enough money because the estimated cost is over \$25.

OR

Other valid explanation

Score Points:

2 points Exemplary response

1 point One component

0 points Other

Session: 1
Item No.: 9
Page No.: 9
Content Standard(s): 6 Discrete Mathematics
Process Standard(s): 3.3

Exemplary Response:

- GS OS
GD OD
GP OP
OR
Other valid process

Score Points:

- 2 points Exemplary response (six components)
1 point Four or five components
0 points Other

Session:	1	
Item No.:	10	
Page No.:	10-11	
Content Standard(s):	3	Data Analysis, Probability, and Statistics
Process Standard(s):	1.8	

Score Points:

4 points	<p>The student's response fully addresses the performance event.</p> <p>The response:</p> <ul style="list-style-type: none">• demonstrates knowledge of the mathematical concepts and principles needed to complete the event.• communicates all process components that lead to an appropriate and systematic solution.• may have only minor flaws with no effect on the reasonableness of the solution.
3 points	<p>The student's response substantially addresses the performance event.</p> <p>The response:</p> <ul style="list-style-type: none">• demonstrates knowledge of the mathematical concepts and principles needed to complete the event.• communicates most process components that lead to an appropriate and systematic solution.• may have only minor flaws with minimal effect on the reasonableness of the solution.
2 points	<p>The student's response partially addresses the performance event.</p> <p>The response:</p> <ul style="list-style-type: none">• demonstrates a limited knowledge of mathematical concepts and principles needed to complete the event.• communicates some process components that lead to an appropriate and systematic solution.• may have flaws or extraneous information that indicates some lack of understanding or confusion.

Session: 1
Item No.: 10
Page No.: 10-11
Content Standard(s): 3 Data Analysis, Probability, and Statistics
Process Standard(s): 1.8

1 point The student's response minimally addresses the performance event.

The response:

- demonstrates a limited knowledge of the mathematical concepts and principles needed to complete the event.
- communicates few or no process components that lead to an appropriate and systematic solution.
- may have flaws or extraneous information that indicates lack of understanding or confusion.

0 points Other—Responses not addressed by the Condition Codes:

Examples of "0":

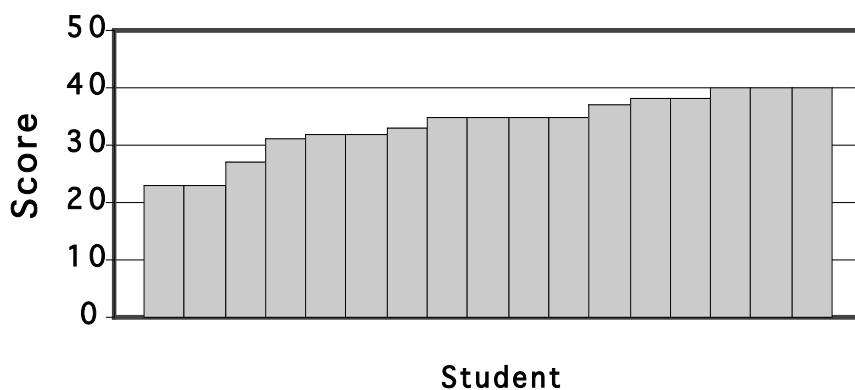
Work consists of copying the prompt information only.
Work indicates no mathematical understanding of the task.

Session: 1
Item No.: 10
Page No.: 10-11
Content Standard(s): 3 Data Analysis, Probability, and Statistics
Process Standard(s): 1.8

Exemplary Response:

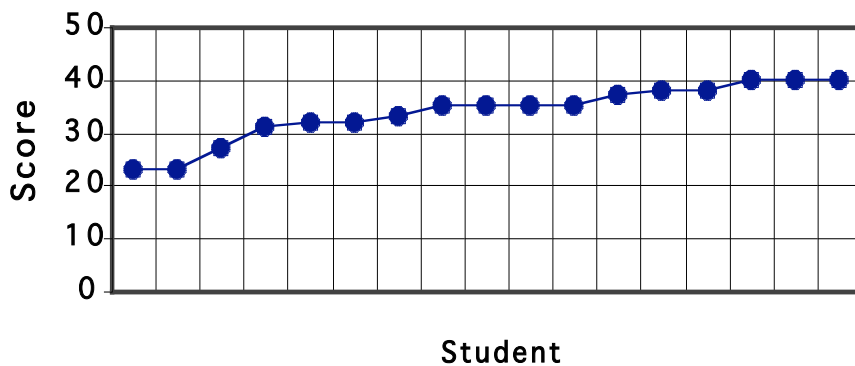
•

Mrs. Stevens' Game



OR

Mrs. Stevens' Game



OR

Other valid displays of data

Session: 1
Item No.: 10
Page No.: 10-11
Content Standard(s): 3 Data Analysis, Probability, and Statistics
Process Standard(s): 1.8

AND

- Which score occurred most often?

OR

- What are the scores that only 2 students received?

OR

Other valid question

Score Points:

Apply the four-point holistic rubric.

Session: 2
Item No.: 1
Page No.: 2-3
Content Standard(s): 4 Patterns and Relationships
Process Standard(s): 1.6

Score Points:

- 4 points The student's response fully addresses the performance event.
- The response:
- demonstrates knowledge of the mathematical concepts and principles needed to complete the event.
 - communicates all process components that lead to an appropriate and systematic solution.
 - may have only minor flaws with no effect on the reasonableness of the solution.
- 3 points The student's response substantially addresses the performance event.
- The response:
- demonstrates knowledge of the mathematical concepts and principles needed to complete the event.
 - communicates most process components that lead to an appropriate and systematic solution.
 - may have only minor flaws with minimal effect on the reasonableness of the solution.
- 2 points The student's response partially addresses the performance event.
- The response:
- demonstrates a limited knowledge of mathematical concepts and principles needed to complete the event.
 - communicates some process components that lead to an appropriate and systematic solution.
 - may have flaws or extraneous information that indicates some lack of understanding or confusion.

Session: 2
Item No.: 1
Page No.: 2-3
Content Standard(s): 4 Patterns and Relationships
Process Standard(s): 1.6

1 point The student's response minimally addresses the performance event.

The response:

- demonstrates a limited knowledge of the mathematical concepts and principles needed to complete the event.
- communicates few or no process components that lead to an appropriate and systematic solution.
- may have flaws or extraneous information that indicates lack of understanding or confusion.

0 points Other—Responses not addressed by the Condition Codes:

Examples of "0":

Work consists of copying the prompt information only.
Work indicates no mathematical understanding of the task.

Session: 2
Item No.: 1
Page No.: 2-3
Content Standard(s): 4 Patterns and Relationships
Process Standard(s): 1.6

Exemplary Response:

•

Frame Size	Total Number of Tiles	Number of Red Tiles	Number of Orange Tiles	Number of Yellow Tiles
6 by 4	16	8	4	4
7 by 5	20	10	5	5
8 by 6	24	12	6	6
9 by 7	28	14	7	7
10 by 8	32	16	8	8

AND

•

Frame Size	Total Number of Tiles	Number of Red Tiles	Number of Orange Tiles	Number of Yellow Tiles
102 by 100	400	200	100	100

Session: 2
Item No.: 1
Page No.: 2-3
Content Standard(s): 4 Patterns and Relationships
Process Standard(s): 1.6

AND

- I knew that the total number of tiles is the shorter side of the frame times 4. Then the number of red tiles is half the total number of tiles. Then the orange and yellow tiles are half the number of red.

OR

Other valid explanation

Score Points:

Apply the four-point holistic rubric.

Session: 2
Item No.: 6
Page No.: 8-9
Content Standard(s): 3 Data Analysis, Probability, and Statistics
Process Standard(s): 1.5

Exemplary Response:

Favorite Picnic Activities

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Activity	Number of Votes
Baseball	12
Football	12
Badminton	6
Volleyball	4
Relays	4
Swimming	4
Soccer	12

Score Points:

2 points Exemplary response (four components)

1 point Two or three components

0 points Other

Session: 2
Item No.: 8
Page No.: 11
Content Standard(s): 4 Patterns and Relationships
Process Standard(s): 2.1

Exemplary Response:

- I bought a box of 24 crayons. Now I can find only 19 of them. How many crayons are missing?

OR

Other valid story problem that can be solved by the number sentence.

AND

- $24 - 19 = \boxed{5}$

OR

- $19 + \boxed{5} = 24$

Score Points:

2 points Exemplary response

1 point One component

0 points Other

Session: 2

Item No.: 9

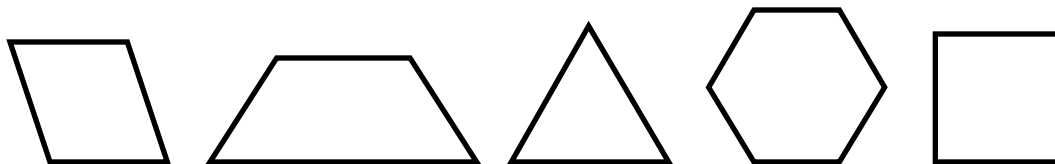
Page No.: 12

Content Standard(s): 2 Geometric/Spatial Sense and Measurement

Process Standard(s): 1.6

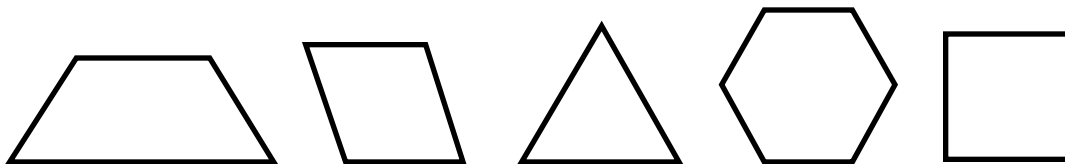
Exemplary Response:

•



OR

•



Note: Students can either trace pattern blocks or write the name of the shapes for credit.

Score Points:

2 points Exemplary response (five components)

1 point Three or four components

0 points Other

Session: 2

Item No.: 10

Page No.: 13

Content Standard(s): 5 Mathematical Systems and Number Theory

Process Standard(s): 1.6

Exemplary Response:

- $4 \times 5 = 20$

OR

- $5 \times 4 = 20$

OR

Other valid number sentences

AND

- $4 + 4 + 4 + 4 + 4 = 20$

OR

- $5 + 5 + 5 + 5 = 20$

OR

Other valid number sentences

Score Points:

2 points Exemplary response

1 point One component

0 points Other